Audio-Enhanced Computer-Assisted Self-Interview in an HIV Vaccine Clinical Safety Trial

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A clinical safety trial for a preventive vaccine for HIV is planned in Thailand. The trial protocols call for the participating volunteers to be frequently interviewed about their HIV risk behavior. As the trial progresses, some volunteers might conclude that they were "immunized" to HIV, and increase their risk behaviors. Conversely, the counseling that volunteers receive in the trial may lead them to markedly decrease their HIV risk behavior.

There are barriers to conducting the required interviews, however. Some volunteers may be reluctant to reveal personal information about HIV risk behavior in a face-to-face interview. When written questionnaires are used, volunteers may misunderstand individual questions and the instructions for skipping questions. Data in both face-to-face and written interviews are subject to transcription errors.

This electronic poster demonstrates a computerized interview system that may avoid these potential problems. Prior research has suggested that computers can validly obtain personal information[1,2,3]. This system uses a "talking computer" that recites questions as it presents them on the screen. The system can present multiple choice questions having as many as 7 alternatives, questions calling for a numerical response, and questions calling for a name of a month as a response. Volunteers indicate their response by touching points on the screen of a laptop computer.

Volunteers with a wide range of reading skills should be able to respond to the questions easily. For example, the system might recite the question "Are you male or female? Press the answer marked number 1 in green if you are male. Press the answer marked number 2 in red if you are female," momentarily highlighting the "male" and "female" alternatives on the screen at the appropriate moments.

Experimenters can very quickly create and amend interviews. The system requires the experimenter only to type in the text of the questions, and to record onto disk the voice files that the system plays to recite the questions. The names that the experimenter gives to the voice files tell the system when to play them.

For each question, the experimenter indicates whether a response is required. If a volunteer fails to answer a required question, the system displays and recites a message asking the volunteer to respond. The system can also detect and react to implausible responses.

Preliminary results concerning the use of the system will be shared at this electronic poster presentation. The issues to be discussed include computerized interviewing of persons having a range of reading skills; the "personality" of the computerized interview, as conveyed by the wording of the questions and the computer's tone of voice; and the relative advantages and disadvantages of a computerized interview, written surveys and face-to-face interviews in the vaccine safety trial.

References

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